

KIC 007708315

Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	R_{\star} (R_{\odot})	T_{\star} (K)	R_p (R_{\oplus})	S_p (S_{\oplus})
007708315-01	OBS	No	0.719912	132.293383	21.6	7.906	10.8	10.7	1.69	7360	0.80	22427.28

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
007708315-01	OBS	FP	0.00	1	0	0	0	LPP_DV—CENT_FEW_DIFFS

Notes: OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

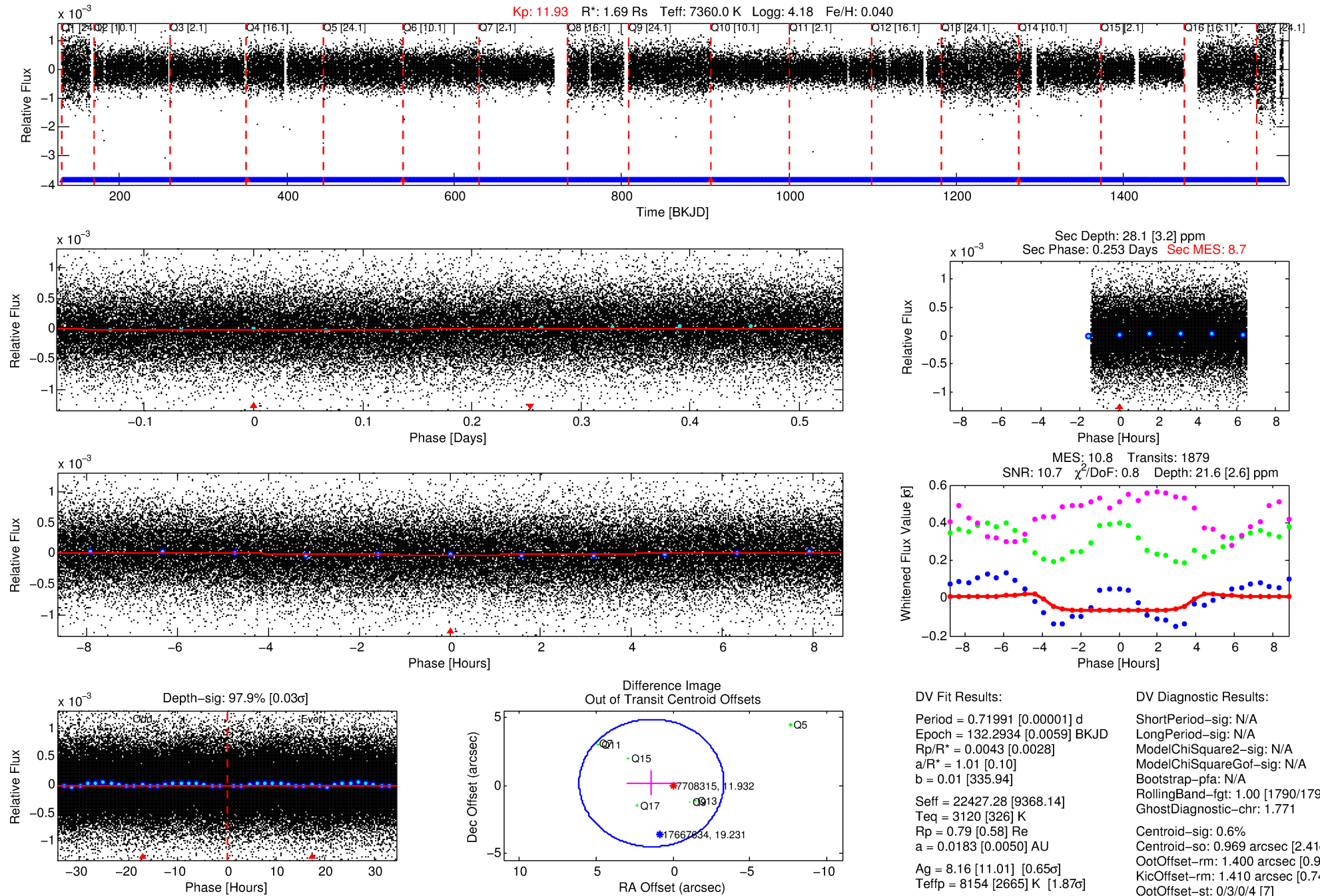
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 007708315-01

No Significant Match Found

DV One-Page Summary

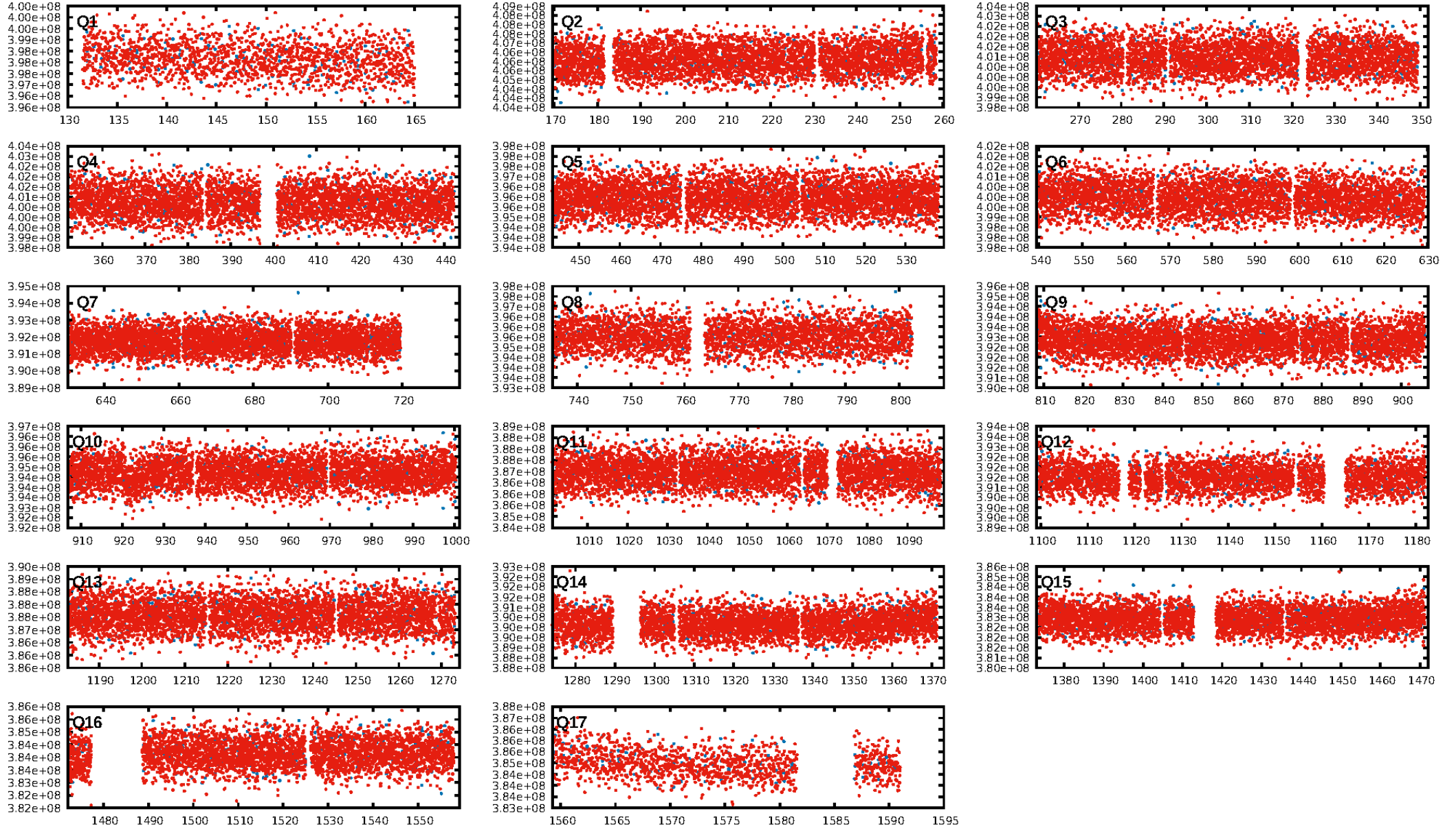
KIC: 7708315 Candidate: 1 of 1 Period: 0.720 d



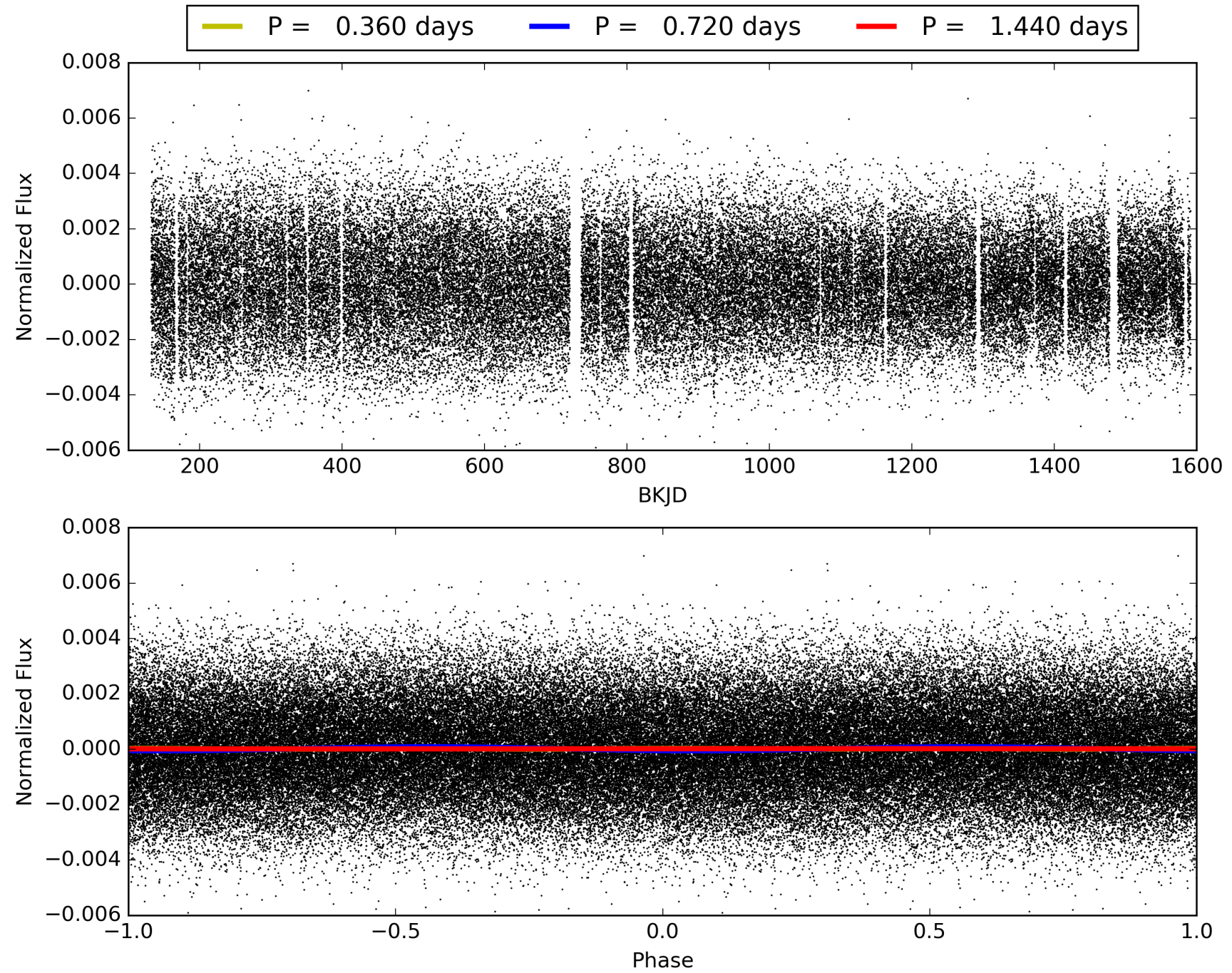
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 19:04:18 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

TCE 007708315-01, PDC Light Curves

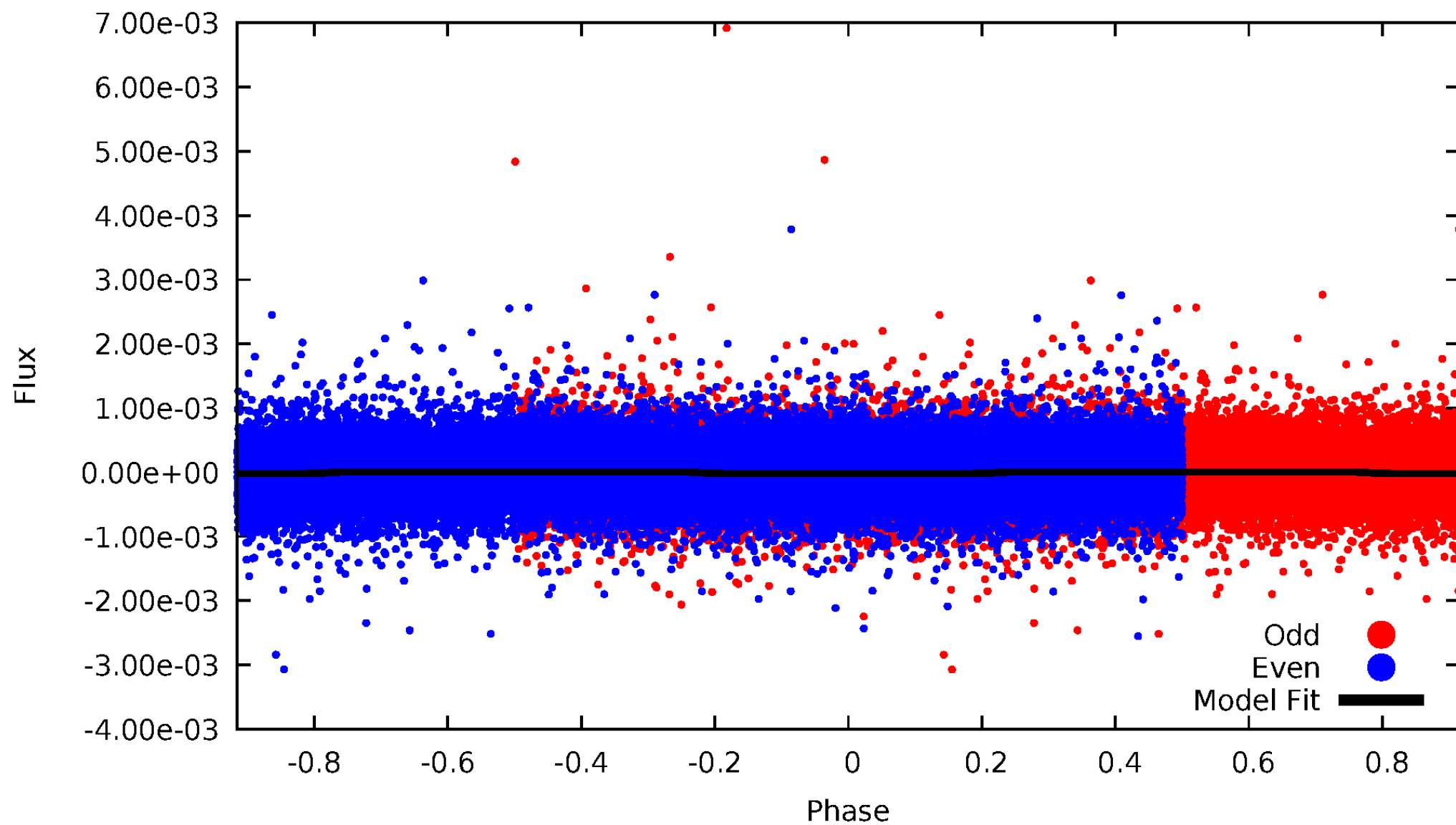


TCE 007708315-01



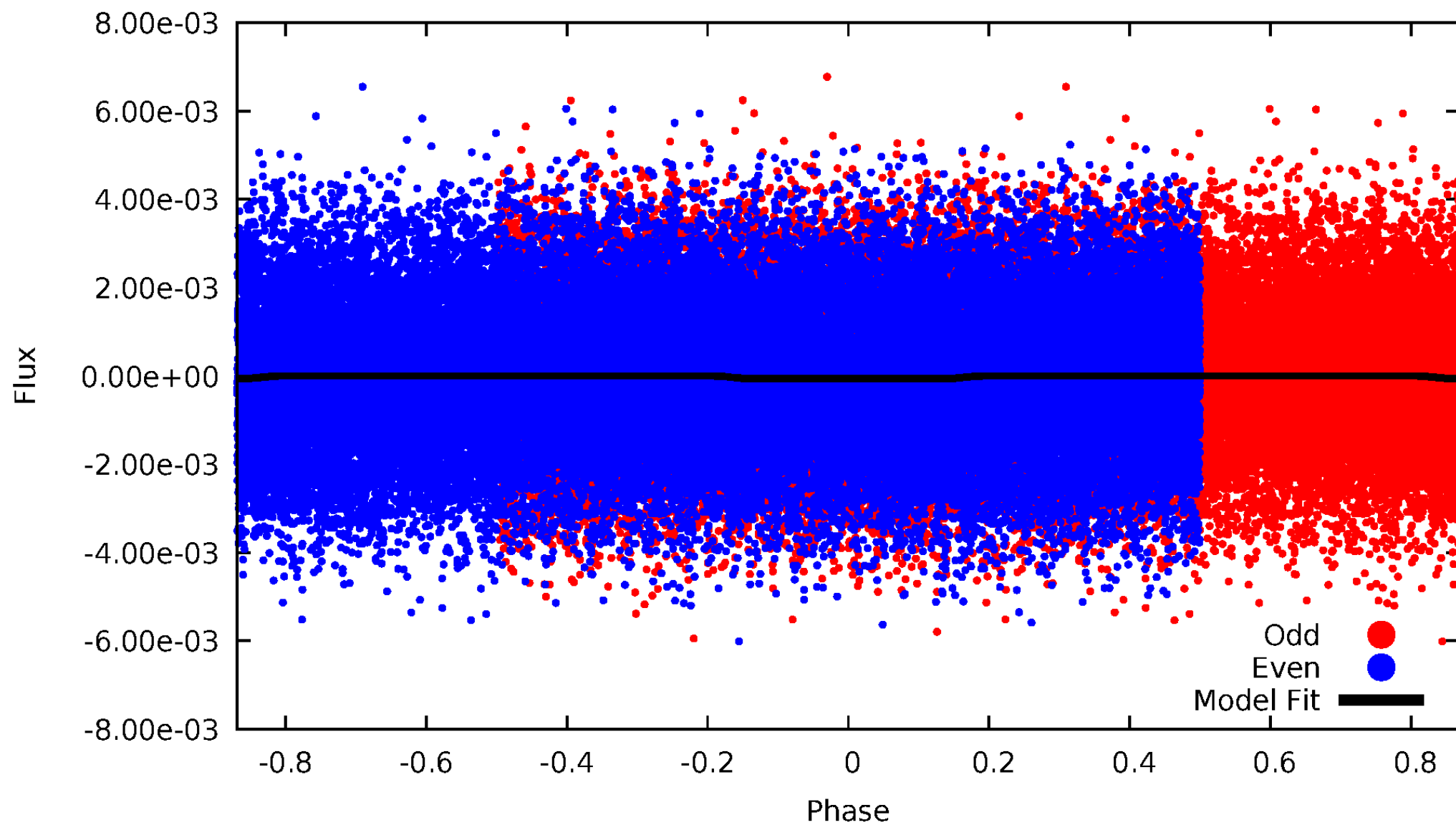
DV Odd/Even

TCE 007708315-01



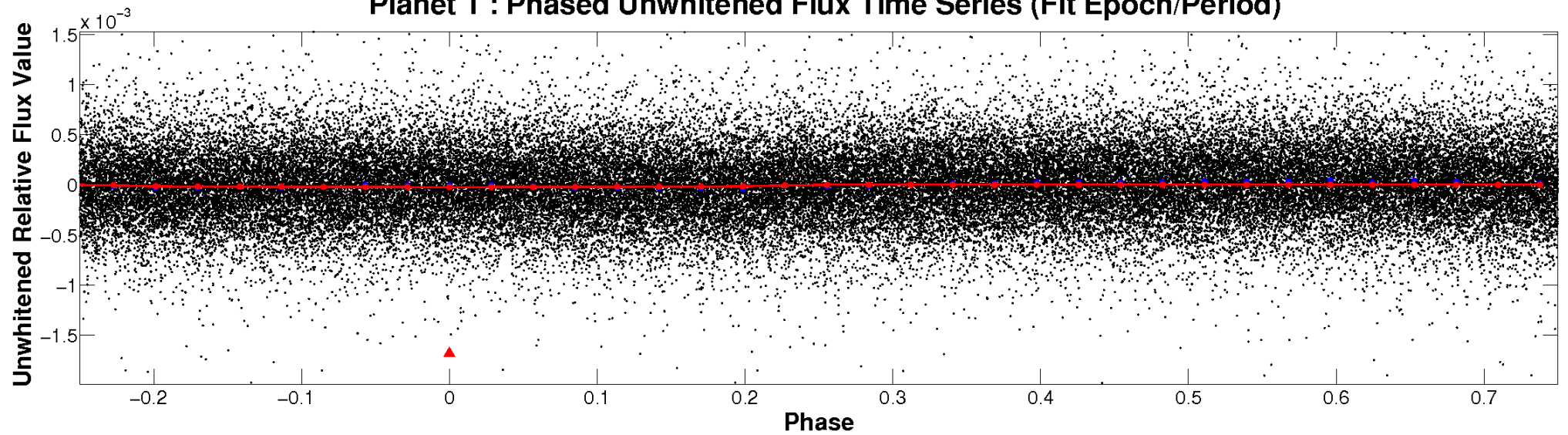
ALT Odd/Even

TCE 007708315-01

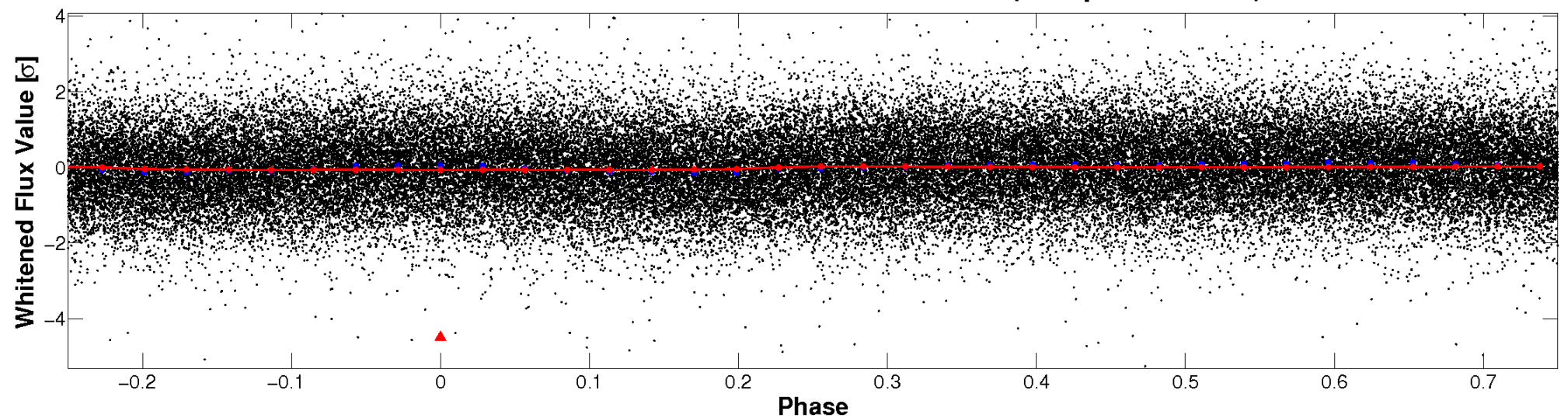


Non-Whitened Vs. Whitened Light Curve

Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

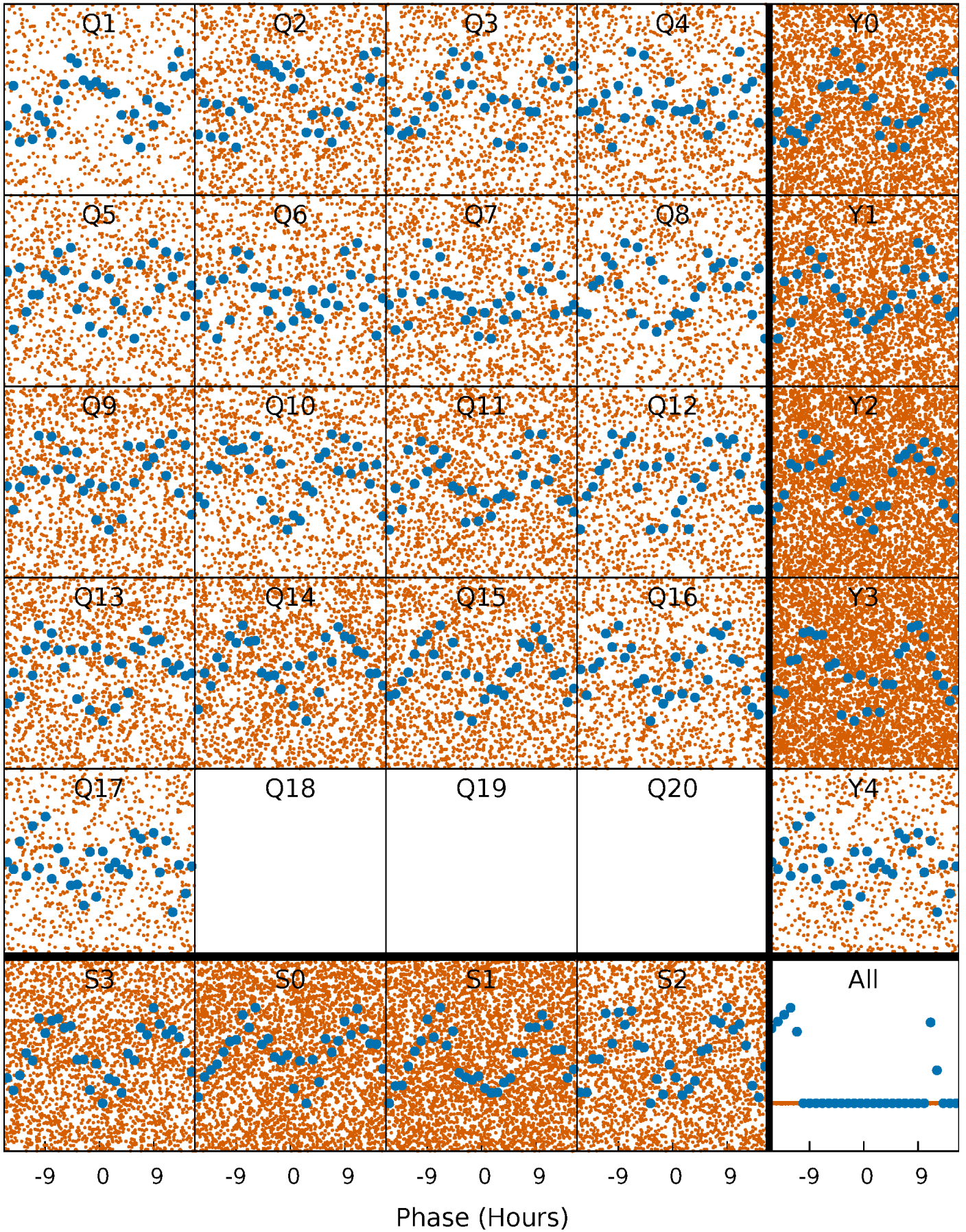


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



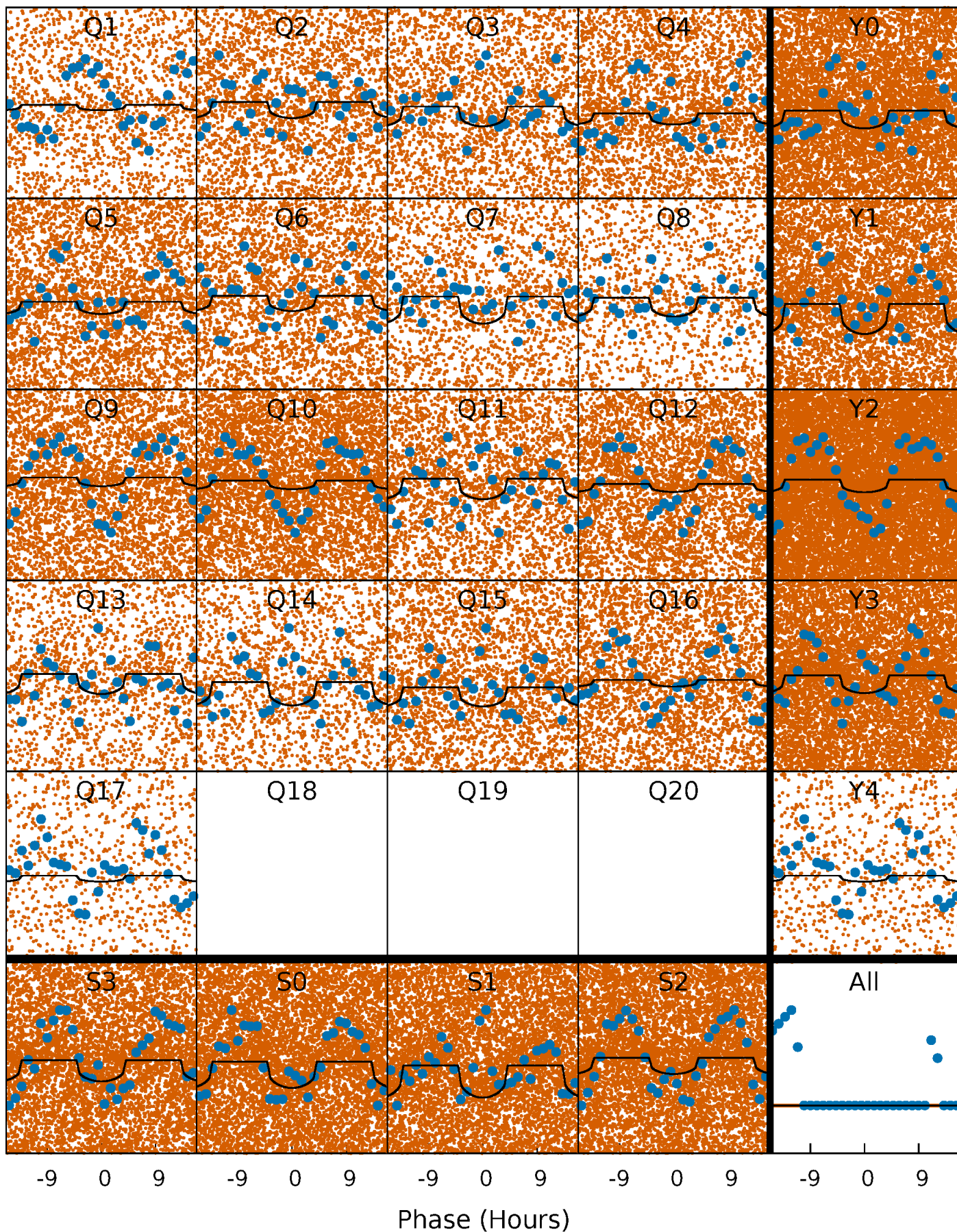
PDC Quarter-Phased Transit Curves

TCE 007708315-01 P= 0.719912 Days $T_0=132.293384$ (BKJD)



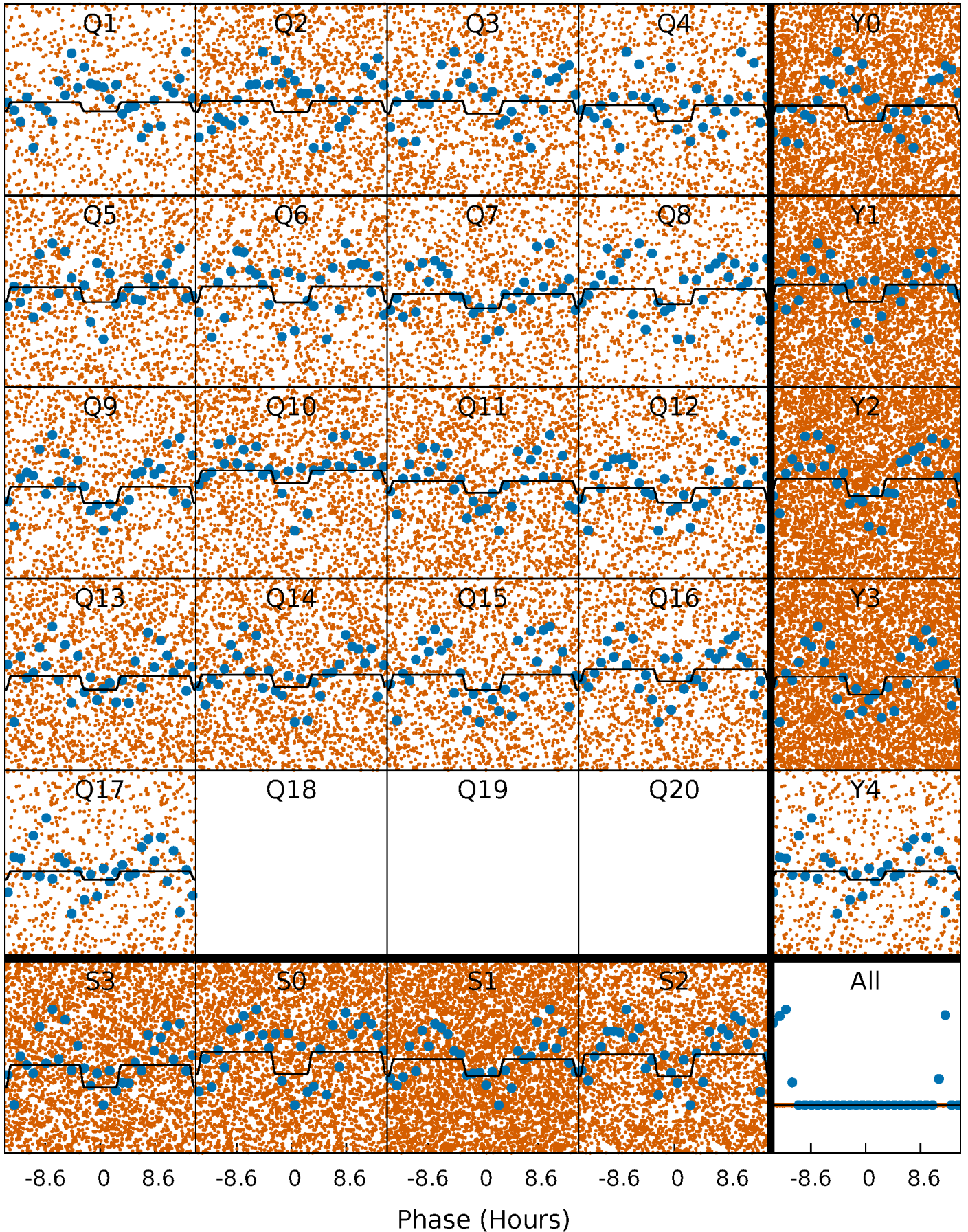
DV Quarter-Phased Transit Curves

TCE 007708315-01 P= 0.719912 Days $T_0=132.293384$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

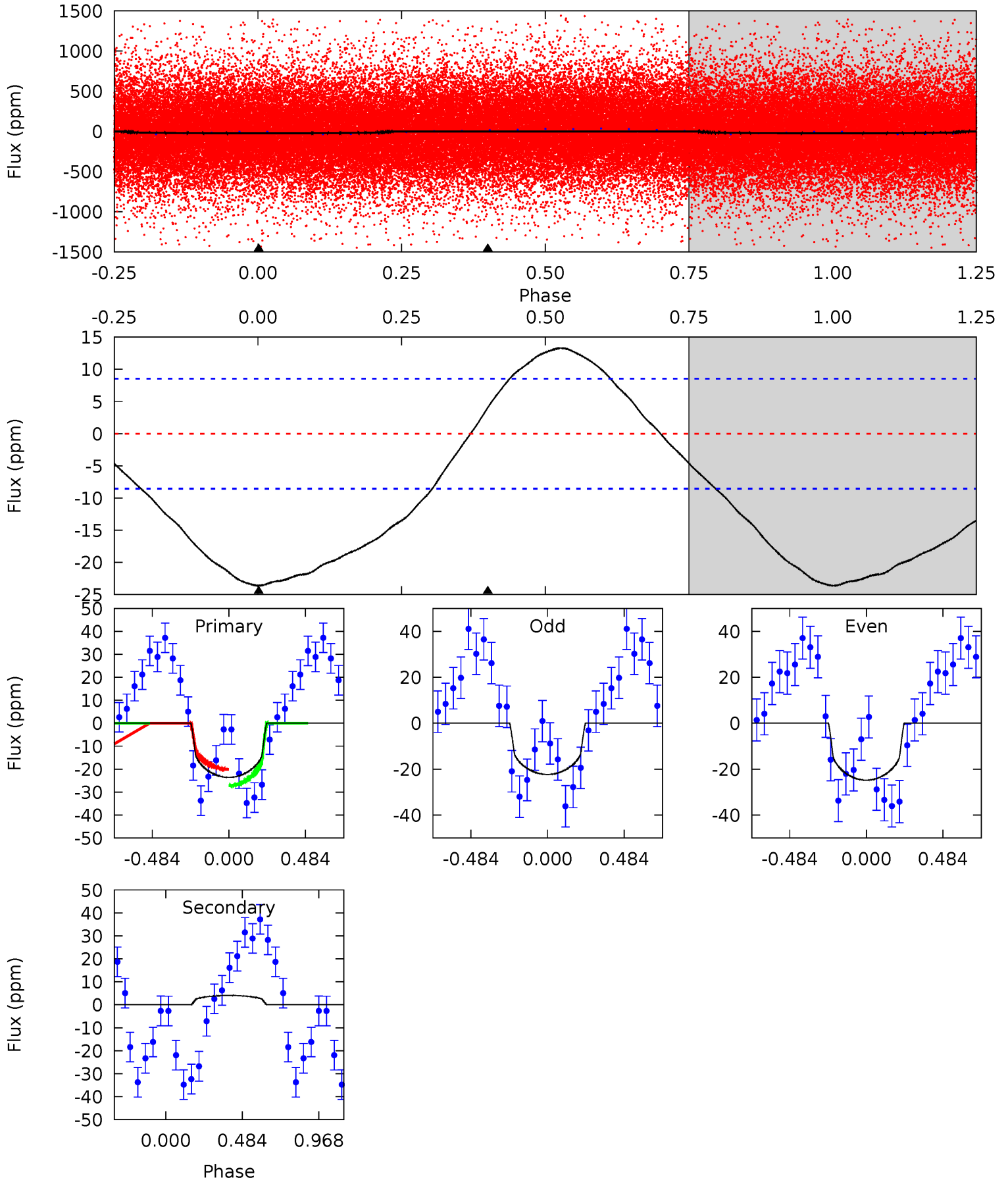
TCE 007708315-01 P= 0.719899 Days $T_0=132.293617$ (BKJD)



DV Model-Shift Uniqueness Test

007708315-01, P = 0.719912 Days, E = 130.853560 Days

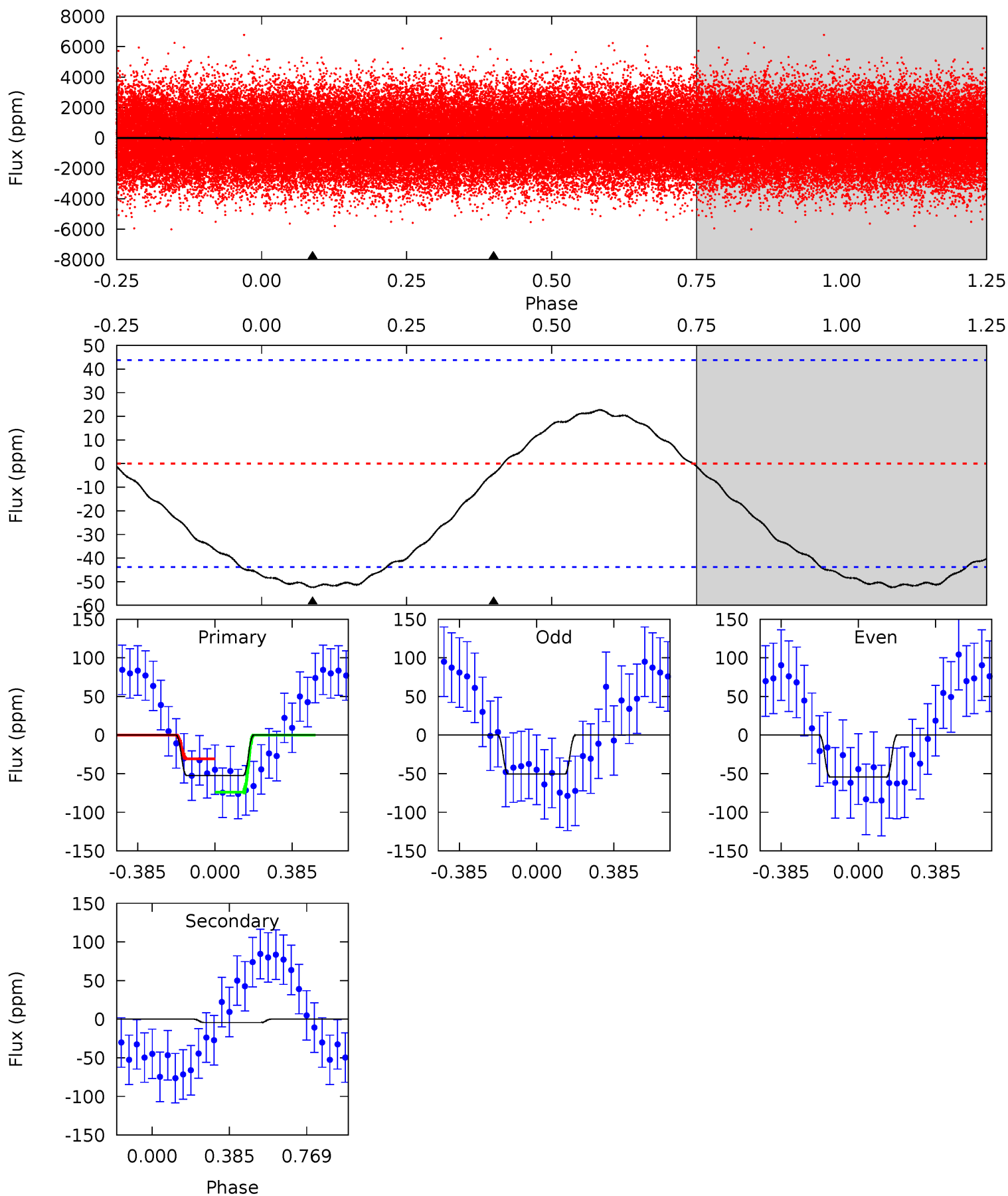
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.7	-2.01	0	0	4.22	0.70	1.40	11.7	11.7	-2.01	-2.01	0.61	1.00	0.36	1.76



Alt Model-Shift Uniqueness Test

007708315-01, P = 0.719899 Days, E = 130.853819 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
5.11	0.42	0	0	4.27	0.87	0.60	5.11	5.11	0.42	0.42	0.19	0.86	0.30	2.09



Stellar Parameters For KIC 007708315

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	7360^{+228}_{-330}	$4.179^{+0.090}_{-0.195}$	$0.040^{+0.200}_{-0.350}$	$1.687^{+0.581}_{-0.291}$	$1.569^{+0.232}_{-0.211}$	$0.460^{+0.230}_{-0.245}$
	+3%/-4%	+2%/-5%	+500%/-875%	+34%/-17%	+15%/-13%	+50%/-53%
Source	KIC0	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

Secondary Eclipse Parameters for KIC 007708315-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	4 ± 2	$0.87^{+0.55}_{-0.45}$	4406^{+316}_{-260}	-5127^{+740}_{-1998}	$-0.876^{+0.609}_{-3.600}$
Alt.	-4 ± 10	$1.46^{+0.58}_{-0.58}$	4411^{+335}_{-257}	2483^{+2827}_{-7231}	$0.309^{+1.481}_{-0.765}$

T_{max} = Theoretical Maximum Planetary Temperature

T_{obs} = Observed Planetary Temperature (Assuming A=0.3)

A_{obs} = Observed Albedo (Assuming T=0)

If a secondary eclipse is present, the system is likely an EB if $T_{obs} \gg T_{max}$ AND $A_{obs} \gg 1.0$

DV Centroid Data

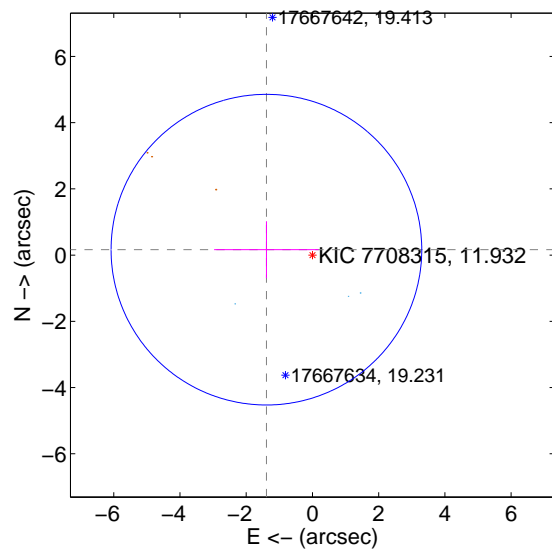
Supplemental centroid analysis for 007708315-01. **Kepler magnitude: 11.93.** Transit SNR 10.73

There are 3 quarters with good PRF difference image offsets

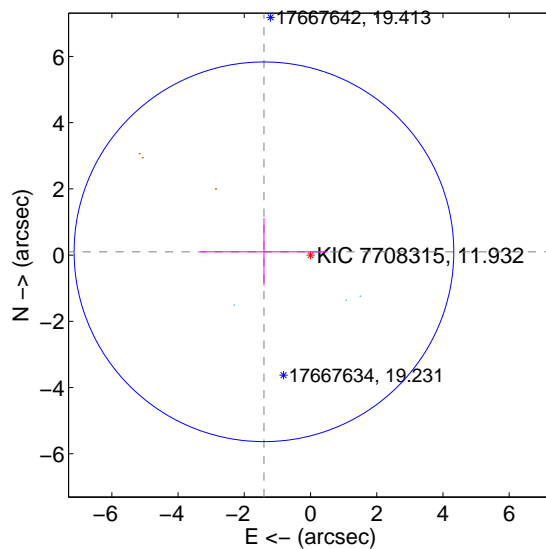
The direct PRF centroid is offset from the target star catalog position by about 0.05 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	1.400 ± 1.564	0.90	1.390 ± 1.579	0.164 ± 0.860
PRF-fit source offset from KIC position	1.410 ± 1.911	0.74	1.407 ± 1.924	0.100 ± 1.015
photometric centroid source offset	0.97 ± 0.40	2.41	-0.92 ± 0.41	0.32 ± 0.33

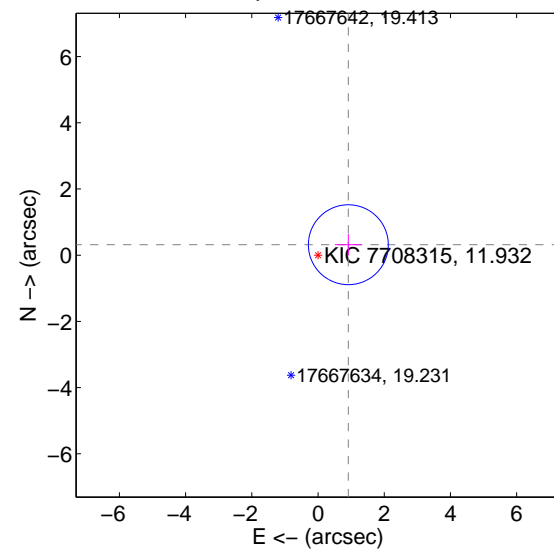
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position

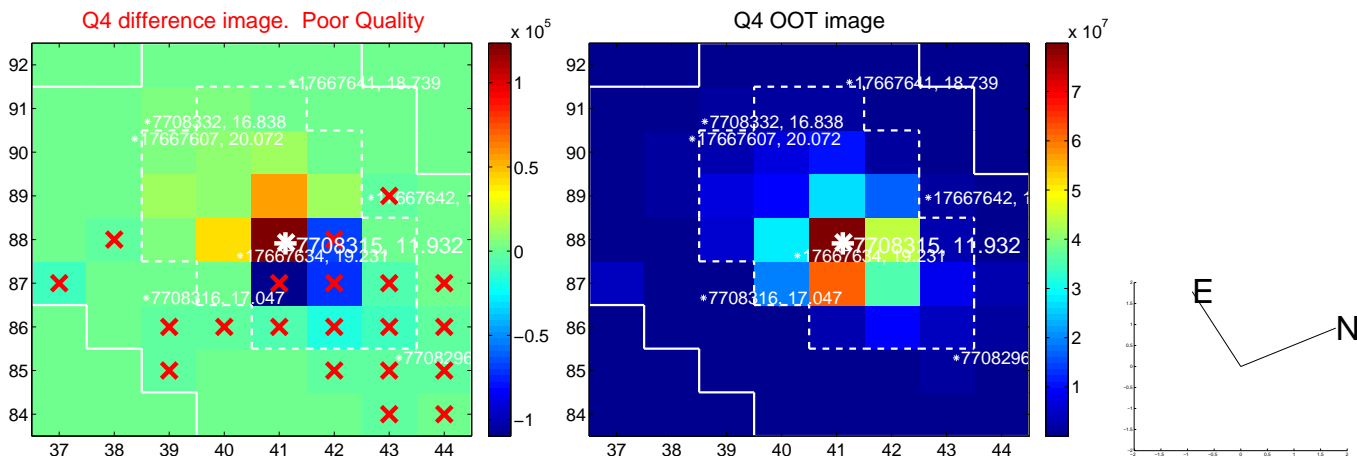
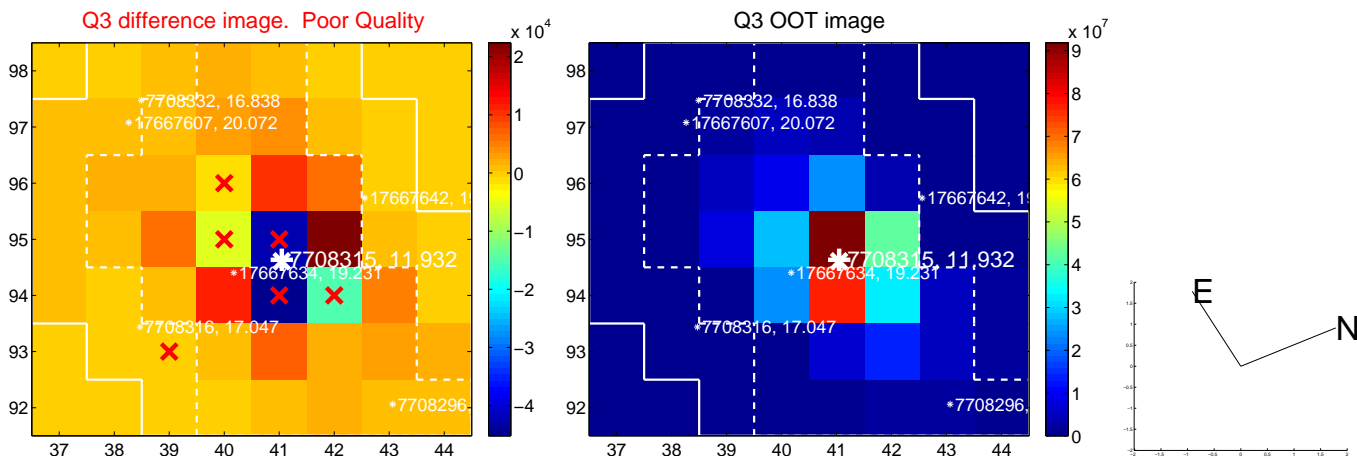
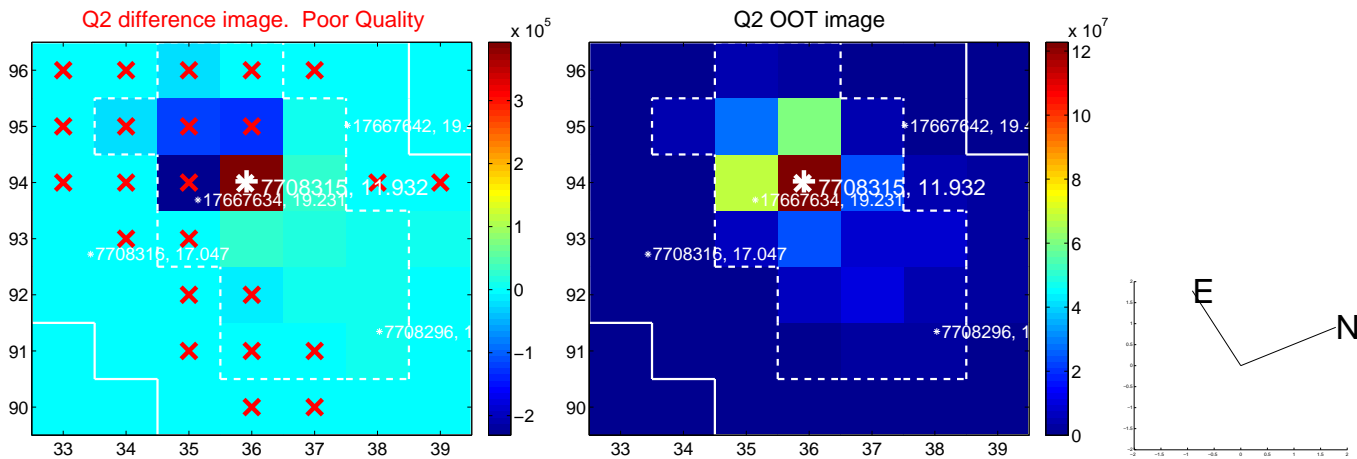
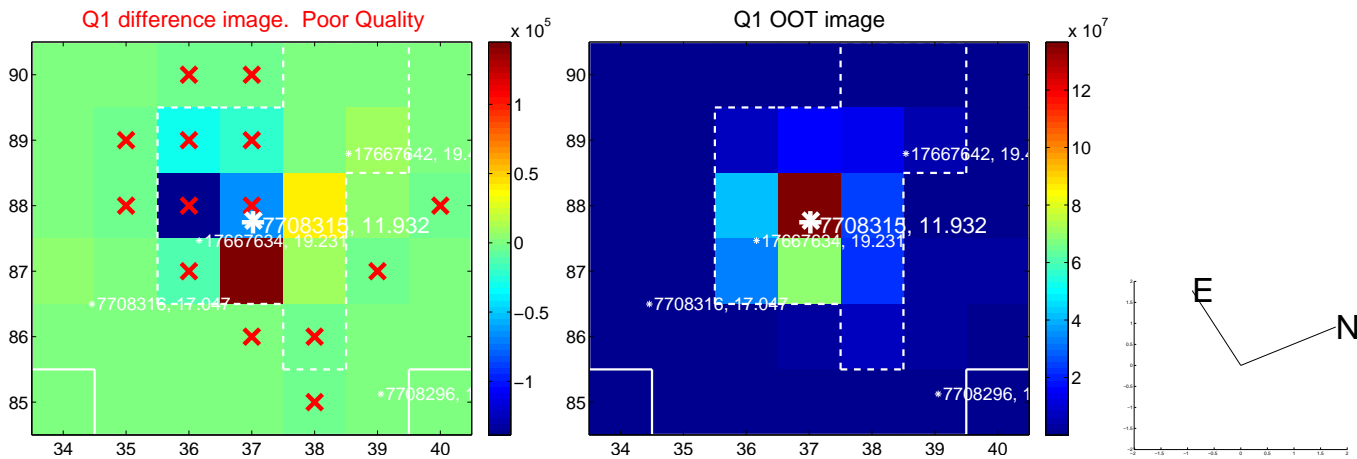


offset from photometric centroids

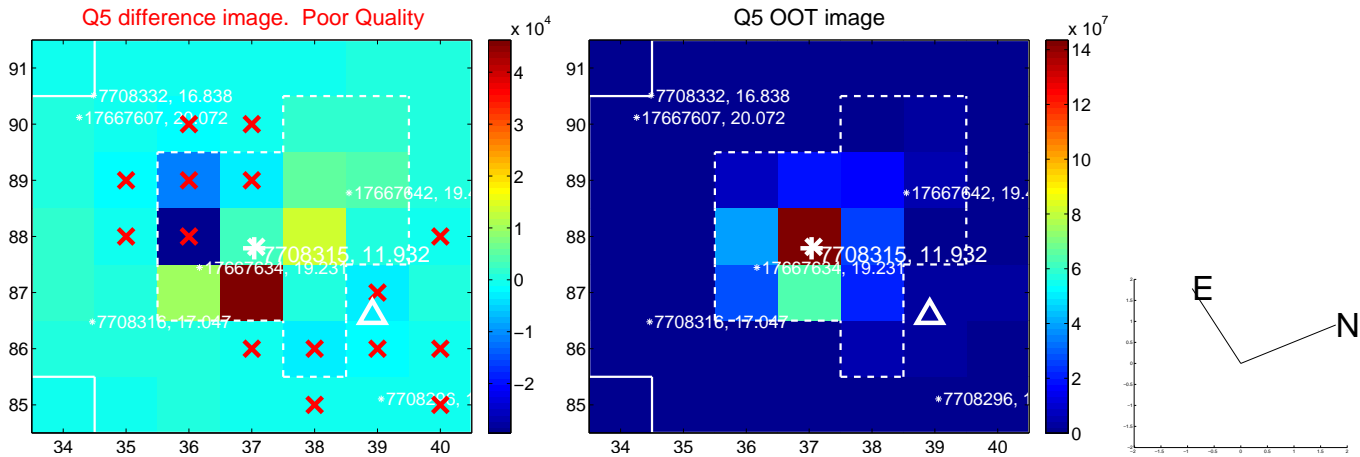


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets;** magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . Red *: target star. Blue *: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

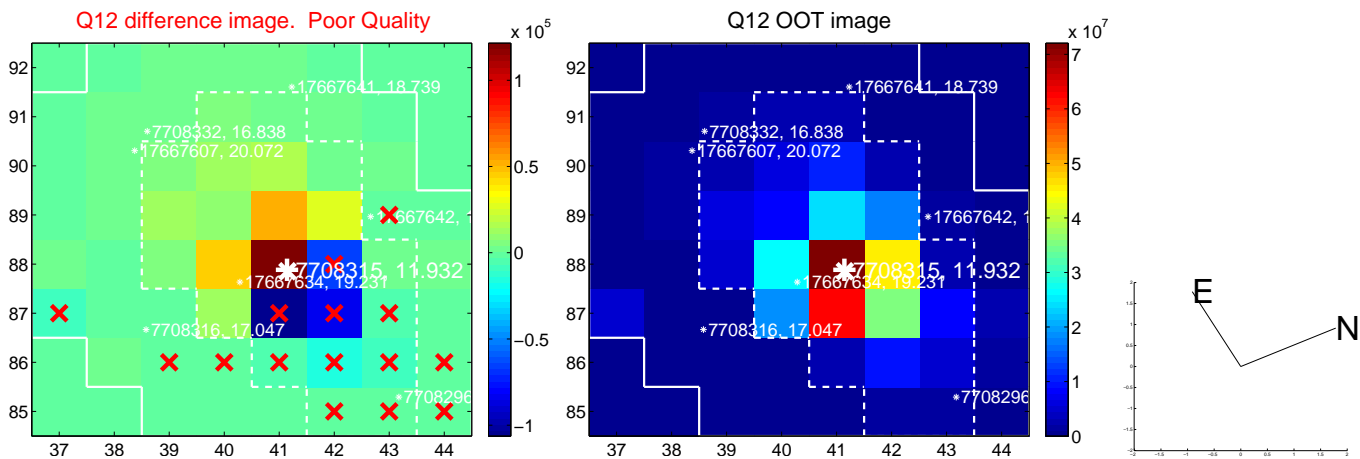
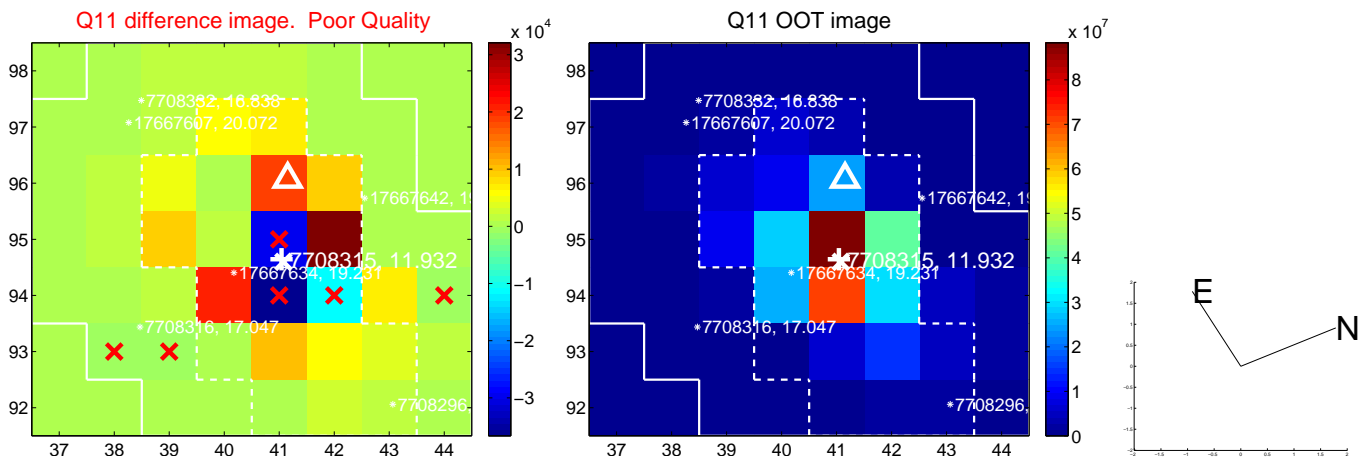
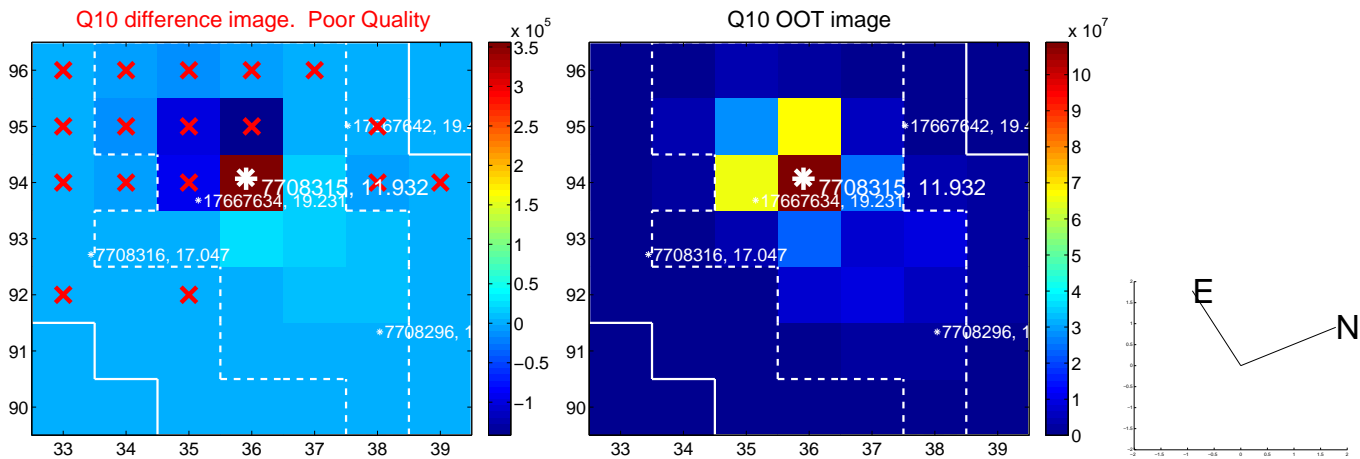
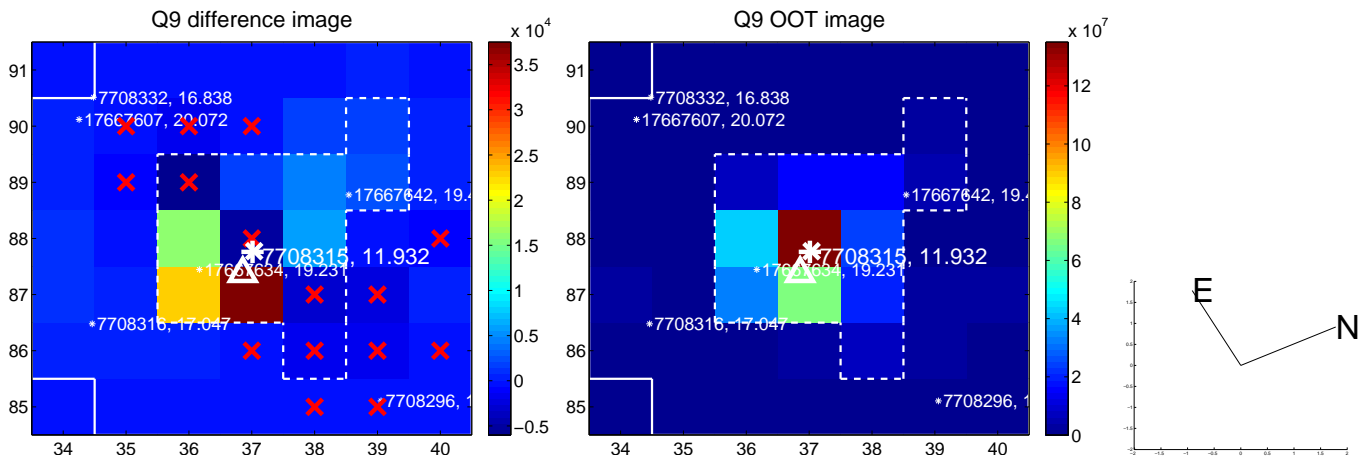
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



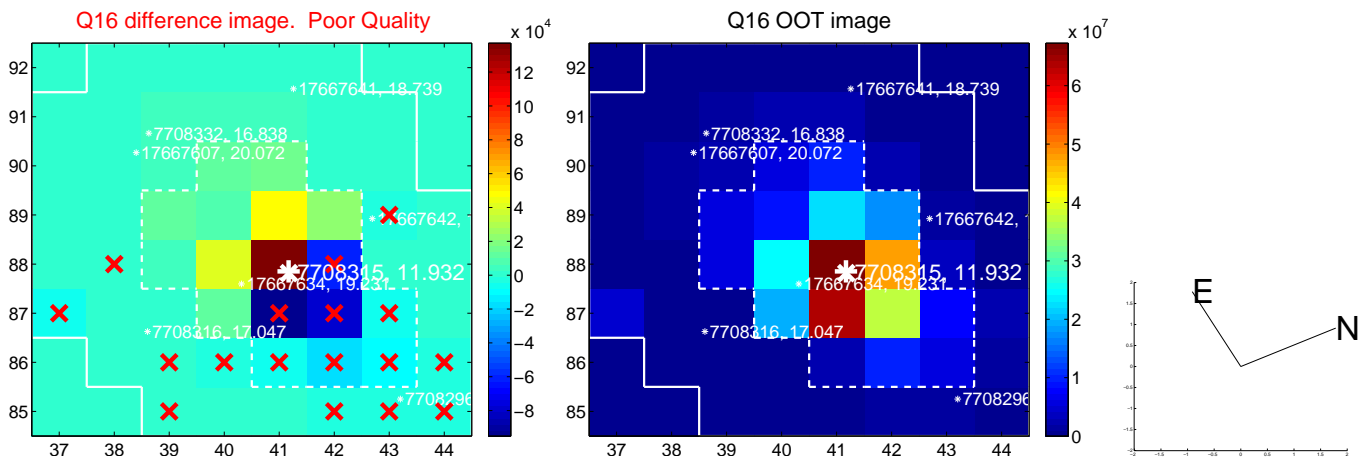
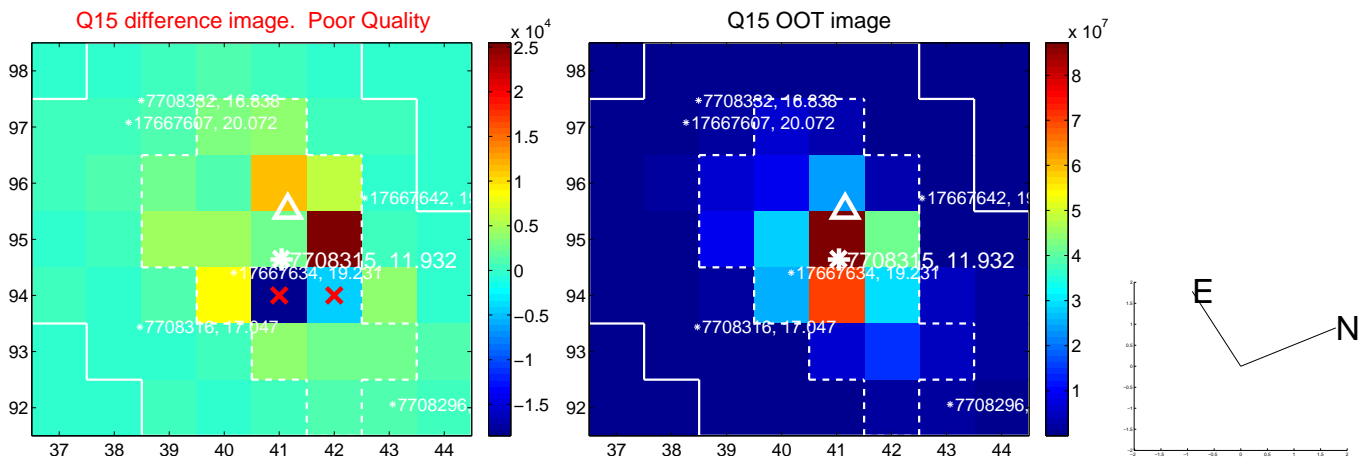
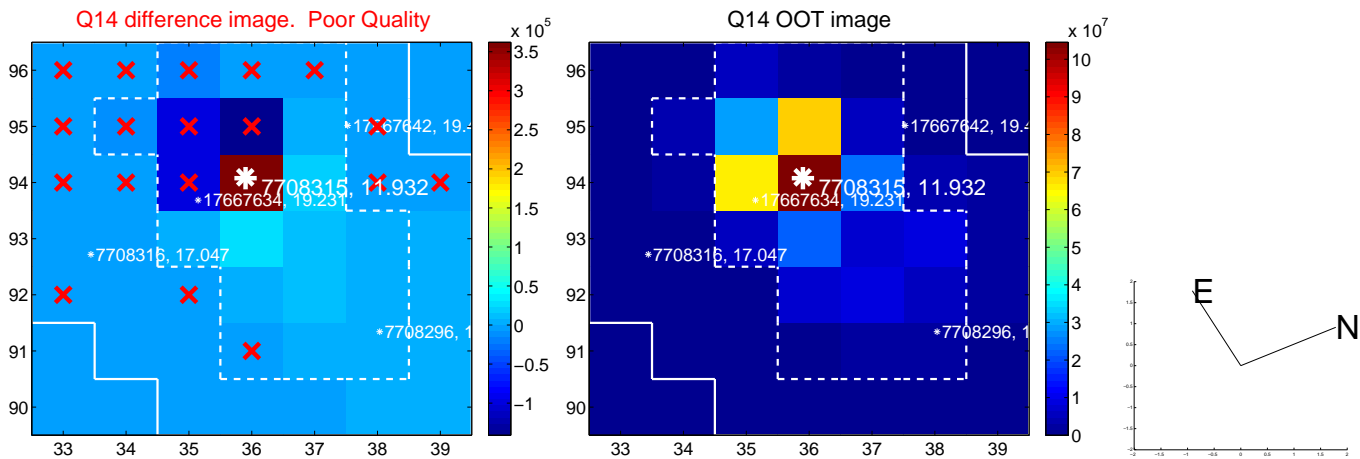
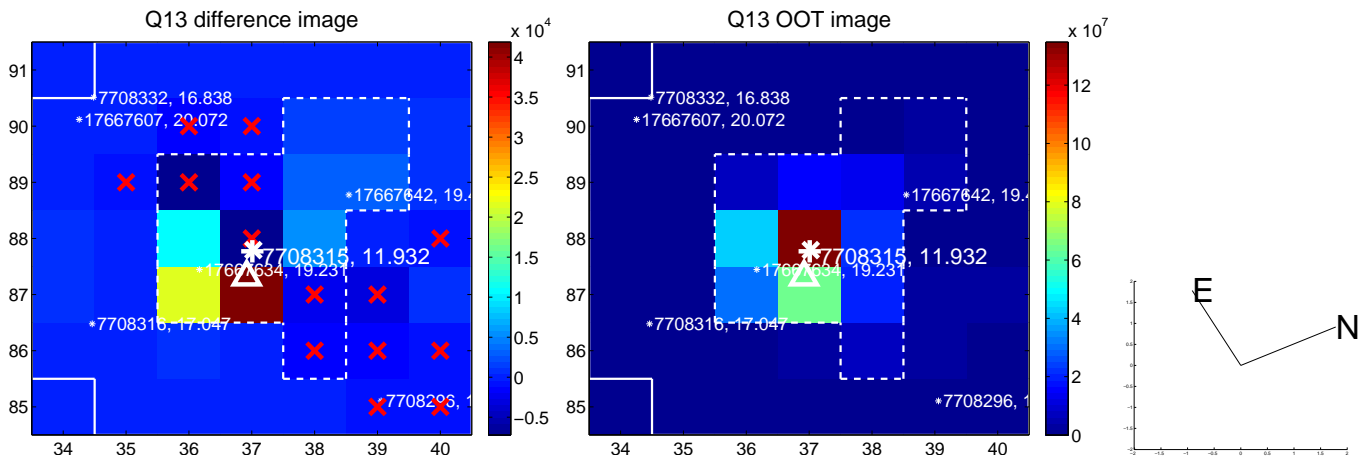
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



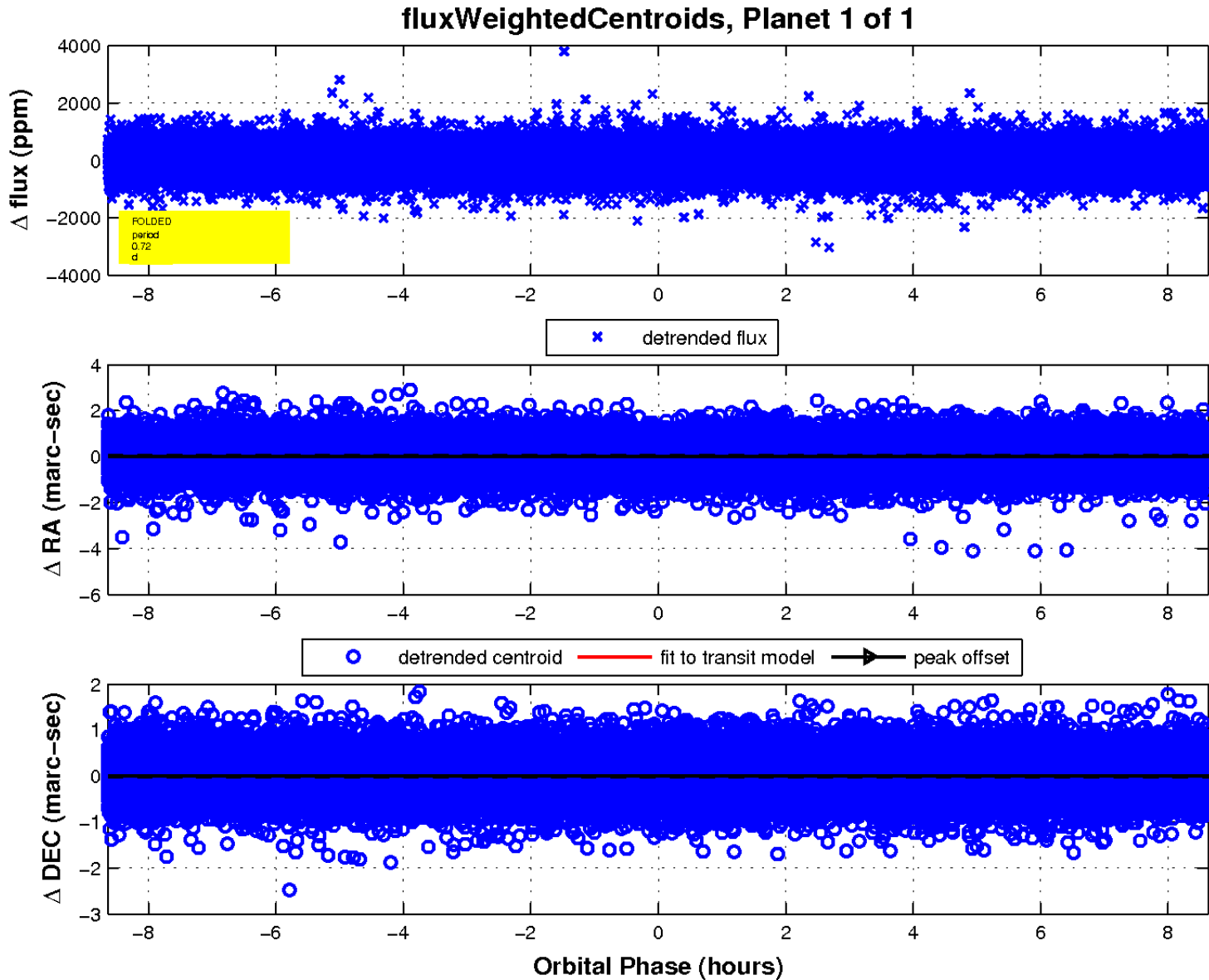
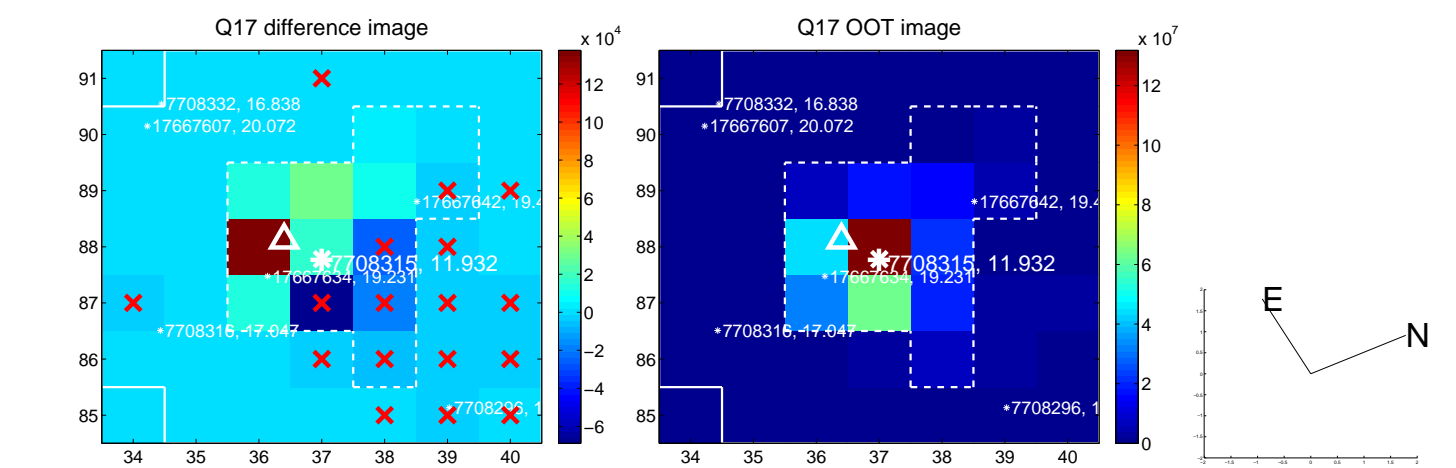
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UKIRT Image

Declination

